

TWO NEW SPECIES OF HELIOPSIS (ASTERACEAE) FROM NORTHWESTERN MEXICO

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A taxonomic treatment of the Mexican Asteraceae (Turner and Nesom, in prep.) necessitates description of the following novelties in Heliopsis.

HELIOPSIS NOVOGALICIANA B. L. Turner, sp. nov.

Differt a H. procumbens foliis sessilibus ovalis prominenter hispidociliatis et antheris appendicibus luteis.

Much resembling H. procumbens Hemsl. but readily distinguished by its petiolate mostly ovate leaves with markedly hispid-ciliate margins. In addition the anther appendages are predominantly yellow and, as noted by McVaugh (1984, p. 502) "Most of the plants from Nuevo Galicia appear more robust, with larger and more pointed leaves and larger heads, than those from the higher elevations near Mexico City".

The characters which I enumerate below appear to be consistently found in one or the other taxon and, what with their distinctive distributions, appear to be good taxa, albeit closely related.

Heliopsis procumbens

1. Leaves

- a) broadest at the middle or nearly so
- b) margins weakly hispid-ciliate, if at all
- c) petioles clearly distinct, 2-6(10) mm long

2. Anther appendages purplish

3. DISTRIBUTION: Trans-volcanic belt of Mexico State and closely surrounding areas

Heliopsis novogalicana

1. Leaves

- a) broadest well below the middle
- b) margins strongly hispid-ciliate
- c) sessile, petioles not clearly defined

2. Anther appendages yellowish

3. DISTRIBUTION: Pacific Coastal Ranges of Jalisco, Nayarit, Sinaloa and Durango

TYPE: MEXICO. JALISCO: Hills near Guadalajara, 22 Jul 1902, C. G. Pringle 9924 (holotype GH).

Additional Specimens Examined: DURANGO. 12 km E of El Salto (23°50' x 105°18'), 2350 m, 23 Jun 1973, Johnston et al. 11443B (TEX). SW of Coyotes Hacienda, 25 Aug 1980, Warnock et al. 2154 (MEXU, TEX). JALISCO: Cerro de Tequila, 2000 m, 13 Jul 1971, Gonzalez T. 215 (TEX); Rio Blanco, Jun 1886, Palmer 36 (GH). NAYARIT: ca 2.5 mi N of Campostela, 2900 ft, 27 Jun 1972, Webster & Lynch 17136 (GH). SINALOA: between Rosario and Colomas, 13 Jul 1897, Rose 1633 (GH).

HELIOPSIS SINALOENSIS B. L. Turner

Differt a H. parviceps corollis luteis radii et discis et acheniis columnaribus tuberculatis 2-3plo longioribus quam latioribus.

Weak-stemmed annual 30-60 cm high. Stems erect, glabrescent or hairs arranged in thin lines along the axis. Leaves opposite, 5-8 cm long, 2-4 cm wide; petioles 1.5-3.5 cm long; blades broadly ovate to deltoid, sparsely to moderately hispid above and beneath, the margins irregularly serrate. Heads single on peduncles 4-12 cm long. Involucre ca 4 mm high, ca 8 mm across, 2-3 seriate, eximbricate; bracts obovate, trinervate, sparsely hispidulous. Receptacle conical; pales 3-4 mm long, purplish. Ray florets pistillate, fertile, 5-8; corollas yellow the ligules 4-7 mm long, weakly nerved, sessile and persistent. Disk florets numerous; corollas yellow, ca 3 mm long, glabrous, the throat ca 0.5 mm long. Achenes columnar, warty, ca 3 mm long, ca 1.5 mm wide, sparsely hispid-puberulent; pappus absent.

TYPE: MEXICO. SINALOA: Ymala, 16-25 Aug 1891, E. Palmer 1471 (holotype GH). Ymala, is also spelled Imala and is located at 24°52' N, 107°15' W according to McVaugh (1956).

Additional collection examined: MEXICO. SINALOA: ca Culiacan, 22 Aug 1904, Brandege s.n. (GH).

Fisher (1957) annotated both of the above specimens as Helioopsis brachactis Standl. ex Fisher but strangely did not cite these in his treatment of the genus. That this was an oversight might be inferred from his dot map which shows the species to have 3 localities: 2 in Sinaloa and 1 in Michoacan. Nevertheless his text states that H. brachactis "is known only from the type locality".

McVaugh (1984) reduced H. brachactis to synonymy under H. parviceps but noted that he had seen only a few collections of the species, three of these from Sinaloa. He further commented that "All the specimens from Sinaloa have yellow disk-corollas, and may

represent a different taxon. This turns out to be so, for not only are the disk (and ray!) florets yellow, they possess markedly different achenes as indicated in Fig. 1.

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#### LITERATURE CITED

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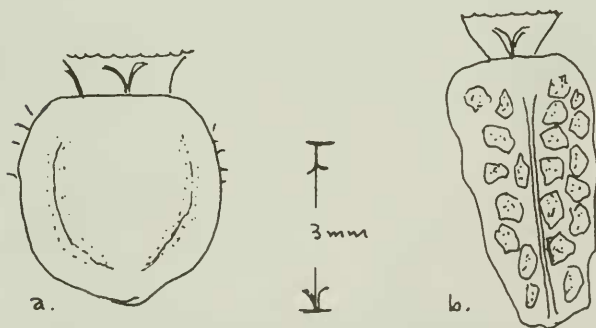


Fig. 1. Ray floret achenes of a) *H. brachactis* and b) *H. sinaloensis*.